

food, which they sometimes steal from such of the coast huts as are temporarily vacated or occupied only by a few aged or infirm folk whom they are able to surprise or overpower." In 1876 and 1881 a few members of this tribe living near the north-east of Great Nicobar were seen by the late Mr. de Röepstorff, who was accompanied in the latter year by Col. T. Cadell, V.C., Chief Commissioner of the Andamans and Nicobars. During the last eighteen months Mr. E. H. Man, while in charge of the Nicobar Islands, has paid six visits to Great Nicobar, on four of which he succeeded in seeing and photographing parties of this tribe, both near Ganges Harbour and on the west coast. On the first of these occasions (viz. February 1884) two youths, aged about eighteen and fourteen years respectively, were persuaded to leave their friends for seven days, at the end of which they were conveyed back from Nancowry in the settlement steamer. During their visit to Mr. Man they proved themselves tractable and timid, and submitted with a good grace to ablutions which were found very necessary. Although this is the first recorded instance of a Peñ having ventured from his savage haunts, these lads exhibited the Oriental characteristic absence of wonderment at all the novel surroundings and tokens of civilisation in the Government settlement. They were fair specimens of their race, the members of which are found to be usually well nourished, of good physique, and, while young, favoured with pleasant features. The height of the males appears to range between 5 feet 2 inches and 5 feet 8 inches; their skin is fairer than that of the generality of the coast people, who, on their part, are less dark than the Malay; the hands and feet seem to be decidedly large, and bear evidence of the rough work of their daily lives; the hair, which is straight, is commonly worn uncut and unkempt, and, as habits of cleanliness are manifestly foreign to their nature, its condition can better be imagined than described. As a result of their friendly intercourse in recent years with the coast people, they have acquired the habit, so universally practised among the latter, of chewing the betel-nut (*Chavica belle*) with or without quicklime, and are consequently beginning to be similarly disfigured with black teeth, though not yet to the hideous extent common among their more civilised, or, rather, less savage, neighbours. They likewise now imitate the latter in respect to clothing, the men adopting the narrow loin-cloth and the women a small cloth skirt. Their dwellings are small, and cannot compare with those of the coast people, and are indeed but little, if at all, superior to those of the Négritos in Little Andaman, but they more nearly assimilate the former in design as well as mode of construction, for they are erected on posts; the floors being raised 6 or 7 feet above the ground necessitate the use of ladders. It is impossible, within the limits of this abstract, to make further mention of the dwellings, or to describe the peculiar sack-like cooking-vessels of this strange race. Mr. Man hopes before long to be able to supplement in many particulars the rudimentary information which has hitherto been obtainable regarding the Peñ, but the task is one of considerable difficulty, for, apart from the dread entertained by this tribe towards aliens, their frequent feuds place from time to time a temporary barrier to all intercourse between them and our friends on the coast, through whom at present all our communications have to be conducted. The nearest portion of Great Nicobar Island is, moreover, about 60 miles distant from the Government settlement at Nancowry.

### SCIENCE IN RUSSIA

THE Kazan Society of Naturalists continued last year its valuable explorations of Eastern Russia, and we have before us several new fascicules of its *Memoirs and Proceedings*.<sup>1</sup> M. Ivanitsky publishes a list of plants of the Government of Vologda, which contains 804 Spermatophytæ, Gymnospermæ, and Sporophytæ. As to these last, only 6 Equisetaceæ, 5 Lycopodiaceæ, and 20 ferns being given, the list obviously will be much extended by subsequent research. The flora of Vologda, which is situated on the limits of the middle and Arctic Russian floras, offers a certain special interest, and M. Ivanitsky has not neglected to mention the wild and cultivated plants which find their northern limits within the province. It consists chiefly of Compositæ (107 species), 49 Cyperaceæ, 48 Gramineæ, 41 to 34 each of Ranunculaceæ, Caryophyllææ, Rosaceæ, and Cruciferae, 27 to 22 Papilionaceæ, Scrophulariæ,

<sup>1</sup> *Trudy Obshchestva Estestvoispytatelei pri Kazanskom Universitete*, vol. xii. fasc. 5 and 6; vol. xiii. fasc. 1 to 4.—*Protokoly (Proceedings)* of the same for the years 1883 and 1884.

Labiatae, Salicinea, and Polygonaceæ, and 21 to 19 Umbelliferae, Filices, and Orchideæ. The list of plants is prefaced by a masterly sketch of the physical conditions of separate parts of the province. The same volume contains a paper by M. Mislavsky on the irritability of the nervous-muscular system, being an inquiry into the causes of the well-known differences of the effects of electrical irritation on the frog, when measured by the methods of Dubois-Reymond. All causes which may depend upon the conditions of the experiments themselves having been eliminated, there still remain notable differences which must be ascribed to the state of the system altogether. A paper, by Th. Tsomakion, on the laws of transmission of electricity through gases, embodies the results of several new experiments in this field. In a former inquiry the author, by introducing into the chain of condensation a discharger where the discharge could take place only at close contact of the two electrodes, had experimentally proved the law, already deduced by Forselman and Heer, that the whole amount of heat produced at the discharge of the condensator does not depend upon the composition of the chain. But as soon as he introduced a layer of gas between the electrodes, he found that his results widely differed from all previously obtained by other students; he undertook a series of experiments for discovering the sources of that discrepancy of results, and he has arrived at a long series of conclusions which are of great interest, but ought to be submitted to a closer inquiry. This last is continued.—To the same vol. xiii. M. Zaitseff contributes a paper on the petrography of the crystalline rocks in the neighbourhood of Krasnovodsk, on the eastern shore of the Caspian. The chief rock in the Shakh-Adam Mountains, which reach about 600 feet above the sea, is a massive, unstratified quartz-dioritic porphyrite (according to the classification of Herr Rosenbusch). Between the bays of Muravioff and Soymonoff the rocks are closely akin to the above, and might be described as quartz-mica-diorite. The former extends also for some miles east of Krasnovodsk, and is intersected by veins of a muscovite-granite (according to Herr Rosenbusch's classification) and quartz porphyry of rare occurrence, its magnesian mica being replaced by a potassium mica.—The same author contributes two papers on the petrography of the Soymonoff valley in the south-east part of the district of Ekaterinburg, which incloses the 3200 feet high Yurma summit and several high ridges of mountains. The author makes a detailed inquiry into the structure of the crystalline rocks of this locality (granites, gneisses, and various schists), and is inclined to admit that at least one part of the olivine-bearing serpentines endow their origin to the metamorphism of the actinolite schists. The iron ores and gold-bearing deposits are also described, the age of these last being undoubtedly settled as Post-Pliocene, as they contain numerous remains of Mammoth, *Bos primigenius*, *Cervus tarandus*, and *Cervus alces*. We may remark that the very high position of several gold-bearing deposits on the slopes of the valleys and their structure is one testimony more in favour of their glacial origin, but the author does not touch this interesting question. He mentions also—a fact which has often been doubted, but is now confirmed more and more—that the gold of these deposits is derived from the decomposition of the chloritic slates. The papers are accompanied by a geological map. In the same volume (fasc. 4) we find a preliminary report, by S. Korzinsky, on a botanical excursion into the delta of the Volga. The list of plants is not yet given by the author, and he publishes only a valuable sketch of the general characters of the delta, distinguishing in it two different regions: the delta proper, which consists of fluviatile deposits; and the Steppe region, covered with the so-called *bougry*, or a kind of *kames*, first described by Karl Bear and still bearing his name, about which *bougry* the author holds a different opinion as to their origin, denying—with full right, we suppose—their origin from the retreat of the Caspian.

As to the *Proceedings* of the Kazan Society, we are glad to learn from them that three new meteorological stations (at Sarapul, Tcherdyn, and Debessy) have been added to those already organised by the Society. There was a great want of meteorological observations precisely for that part of North-East Russia. Several shorter papers are embodied in the *Proceedings*:—On the geology of the Vetluga region, by P. Krotoff (a polemic concerning the Permian and Trias, as also the southern limit of the boulders).—On the fauna of Kazan (between the Kama and Vyatka), by N. Varpakhovsky. The author gives the lists of fishes found in the lakes and rivers, and lists also of serpents and amphibians of the region.—On the preparation

of tripsine, by V. Nikolsky.—On the *bougry* of the Caspian, by A. Zaitseff. They do *not* have the uniformity of structure supposed by Baer; they often cross one another at angles of 20° to 30°, and some of them follow a north-eastern direction, while others, close by, run west and east; and they contain not only broken mussels, as affirmed by Baer, but also plenty of quite full mussels of *Cardium trigonoides*, *Dreissena polymorpha*, *rostriformis*, and *caspia*. The theory of Baer altogether is based on an insufficient supply of data, and the structure of the *bougry* ought to be better explored before pronouncing as to their origin.—On the sulphur ores at Tetushi, on the Volga, by G. Wilenius.

The fourth volume of the "Collection of Materials for the Description of Caucasus,"<sup>1</sup> published by the schoolmasters of Caucasus, contains, as usual, much valuable information, especially of historical and ethnographical character. M. Hahn contributes a most valuable paper of 250 pages, in which he has compiled all information on the Caucasus he was able to discover in authors since Homer up to the fifth century of our era. The information gathered from Byzantine writers who have much more written about the Caucasus, will be embodied in a second part of the work. The importance of this very careful work, where textual translations are given of passages dealing with the Caucasus and its inhabitants from no less than eighty Greek and Latin authors, will be fully appreciated by all those who have to deal with the geography of the country. A complete index will much facilitate the research. M. Eivazoff gives a description of the Aisores of Koilasar, of their manner of life and customs, followed by an Aisor alphabet; and M. Arkannikoff contributes a detailed description of the town Temruk and of the Temruk mouth of the Kuban River. In the second part of the same collection we find a series of interesting notes on the Tchokh village in Daghestan, on Daghestan legends, and on the life of Abkhazes; a collection of Little Russian songs from Kuban; and two lectures on the beautiful seven-centuries-old Georgian poem of Shota Rustaveli.

### SCIENTIFIC SERIALS

THE *Journal of Physiology* for July contains:—Note on the cause of the first sound of the heart, by G. F. Yeo and J. Barrett.—An experimental investigation to ascertain the action of veratria on a cardiac contraction, by S. Ringer (plate 2).—Concerning the action of small quantities of calcium, sodium, and potassium salts upon the vitality and function of contractile tissue and the cuticular cells of fishes, by S. Ringer and D. W. Burton.—A study of the action of the depressor nerve, and a consideration of the effect of blood-pressure upon the heart regarded as a sensory organ, by H. Sewall and D. W. Steiner (plate 3).—On secondary and tertiary degenerations in the spinal cord of the dog, by C. S. Sherrington (plates 4 and 5).—On the structure and rhythm of the heart in fishes, with especial reference to the heart of the eel, by S. A. McWilliam (plate 6).—The innervation of the heart of the Slider terrapin (*Pseudemys rugosa*), by J. Wesley Mills.—Note on the sound accompanying the single contraction of skeletal muscle, by E. F. Herroun and G. F. Yeo.

The *Journal of Anatomy and Physiology* for July contains: Account of some recent experiments on the effects of very low temperatures on the putrefactive process and some vital phenomena, by J. J. Coleman and J. G. McKendrick, M.D.—Accessory lobe to the left lung, by L. Humphry, M.B. (plate 17).—Case of abnormal development of the reproductive organs of the frog, by A. F. S. Kent (plate 18).—Rotation and circumduction, by Thomas Dwight, M.D.—Movements of the ulna in pronation and supination, by C. W. Cathcart, M.B.—Anatomy of a hydro-monocephalous brain, by A. Hill, M.D.—Corpus callosum in the adult human brain, by Dr. J. Hamilton, (plates 21 and 22).—Tumours in animals, by J. B. Sutton (plate 23).—Hyomandibular clefts and pseudobranchs of Lepidosteus and Amia, by R. Ramsay Wright (plate 24).—Anatomy of *Spinal bifida*, by Prof. Humphry.—Notes on some variations of the shoulder muscles, by W. B. Ransom.—Tarsus and Carpus, by Prof. K. Bardeleben.

The *Quarterly Journal of Microscopical Science* for July contains:—On spermatogenesis in the rat, by Herbert H. Brown (plates 22 and 23).—A simplified view of the histology of the

striped muscular fibre, by B. Melland (plate 24).—On the development of a freshwater macrurous crustacean (*Atyephora compressa*), by C. Ishikawa (plates 25–28).—On the supposed communication of the vascular system with the exterior in Pleurobranchus, by A. G. Bourne, D.Sc. (plate 29).—Observations on the nervous system of Apus, by P. Pelseneer (plate 30).—Note on the chemical composition of the zoocytium of *Ophrydium versatilis*, by W. D. Halliburton, M.D.—The development of *Peripatus capensis*, by A. Sedgwick, M.A. (plates 31 and 32).

The *Journal of the Royal Microscopical Society* for August contains:—The pathogenic history and the history under cultivation of a new bacillus (*B. alvi*), the cause of a disease of the hive bee hitherto known as foul brood, by F. R. Cheshire and W. Watson Cheyne, M.D. (plates 10 and 11).—Experiments on feeding some insects with the curved or "comma" bacillus, and also with another bacillus (*B. subtilis*?), by R. L. Maddox, M.D.—On four new species of the genus *Floscularia* and on five other new species of Rotifera, by C. T. Hudson, LL.D. (plate 12), with the usual summary of current researches.

The *American Naturalist* for September contains the reputation of the Lantern fly (*Fulgore lanternaria*), by John C. Brauner. To the bibliographical references made in an editorial note to this paper may be added the spirited discussion on the whole subject in the *Entomological Magazine* of 1836.—The age of forest trees, by J. T. Campbell.—The relations of mind and matter, by C. Morris.—The exhalation of ozone by odorous plants, by J. M. Anders and G. B. M. Miller.—Glacial origin of Presque Isle, Lake Erie, by J. D. Ingersoll.—Recent literature and general notes.

The *Proceedings of the Linnean Society of New South Wales*, vol. x. Part I (June 4).—The papers in this part are of great interest, and worthily sustain the credit of this most active and energetic Society. *Zoology*—Dr. R. von Lindenberg, On Australian sponges, part iv. The Myxospongiae, with 5 plates. On *Amoeba parasitica*, a new protozoon infesting sheep. On the Phoriospongiae.—William Macleay, On a new snake from the Barrow Ranges, and On some reptiles from Herbert River.—A. S. Oliff, On some Ceylonese Coleoptera.—J. Brazier, Synonymy of some shells described by Dr. Gray.—W. A. Hasnell, On some Australian Amphipods, with 9 plates.—Captain Hutton, Revision of the Toxoglossate mollusca of New Zealand.—J. Douglas Ogilby, Some rare Port Jackson fishes. *Botany*—Dr. W. Woods, Australian Proteaceae. *Paleontology*—F. Rattle, On a Devonian Australian fossil allied to Worthenia, with a plate; also on the Glacial period in Australia; and on the meteorology of Mount Kosciusko, by Dr. von Lindenberg, with two plates.

*Morphologisches Jahrbuch*, Band II, Heft I, contains:—Contribution to a knowledge of the renal organ of the Prosobranchia, by Dr. B. Haller (plates 1–4).—On the morphological significance of the nucleus, by Dr. W. Pätzner (plate 5).—Short contributions to a knowledge of some marine Rhizopods, by O. Bütschli (plates 6 and 7).—On the significance of the *Linea semicircularis Douglassii*, by Bernhard Solger.—Notes on Apseudes, by J. E. V. Boas.—Short Notes.

*Zeitschrift für wissenschaftliche Zoologie*, Band 42, Heft 1, July 24, contains:—A biographical sketch of Carl Theodor Ernst von Siebold, one of the founders of the *Zeitschrift*, by Ehlers (with a photograph).—On the significance of the nucleus from the point of view of evolution, by Prof. A. Kölliker.—Researches on some Flagellates and kindred organisms, by Dr. C. Fisch (plates 1 to 4).—On the anatomy of the Amphiscœna, by Dr. Carl Smalian (plates 5 and 6).

Band 42, Heft 2, August 18, contains:—An essay on the history of German slugs, and on their European allies, by Dr. H. Simroth. This monograph is illustrated by five plates, that of the species being coloured.

### SOCIETIES AND ACADEMIES

#### PARIS

**Academy of Sciences**, October 5.—M. Bouley, President, in the chair.—Spectral analysis of the elements of the terrestrial atmosphere, by M. J. Janssen. The author describes the special arrangements that have been made at the Meudon

<sup>1</sup> Sbormik materialov dla opisania myestnostei i plemen Kavkaza." Tiflis, 1884.